Appendix D

Committee Member And Staff Biographies

EDWARD J. BOUWER, *Chair***,** is a professor of environmental engineering at the Johns Hopkins University. His research interests include biodegradation of hazardous organic chemicals in the subsurface, biofilm kinetics, water and waste treatment processes, and transport and fate of bacteria in porous media. Dr. Bouwer has served on several NRC committees, including the U.S. National Committee for SCOPE, the Steering Committee on Building Environmental Management Science Programs, and the Committee on Groundwater Cleanup Alternatives. He received a Ph.D. in environmental engineering from Stanford University. Dr. Bouwer is currently director of an EPA Hazardous Substance Research Center at Johns Hopkins.

SIDNEY B. GARLAND is the manager for strategic planning at Bechtel Jacobs Co. in Oak Ridge, Tennessee. He was previously employed as a group leader, project manager, and program manager for Lockheed Martin Energy Systems, Inc. He has extensive professional experience in the development of multi-million-dollar contaminant remediation strategies, integration of related planning activities, and management of remediation projects. In particular, he is involved in long-term stewardship of contaminated sites at Department of Energy facilities, which includes remedial operations, implementation and maintenance of institutional controls, long-term monitoring, and site closure. Mr. Garland received a B.E. in civil engineering from Vanderbilt University, an M.S. in environmental health engineering from the University of Texas, and an M.P.A. from the University of Oklahoma.

PATRICK E. HAAS is employed by Mitretek Systems, a nonprofit, public interest corporation that works with federal, state, and local governments as well as with other nonprofit, public interest organizations in areas of information and scientific systems. He was previously an environmental engineer in the Technology Transfer Division of the Air Force Center for Environmental Excellence located at Brooks Air Force Base, Texas. He represented the Air Force in domestic and international efforts to improve the regulatory acceptance of innovative environmental cleanup technologies and strategies and served as project manager on several nationwide environmental remediation technology application initiatives. Mr. Haas received his B.S. in chemistry and biology from Southwestern University and his M.S. in environmental sciences from the University of Texas, San Antonio.

ROBERT JOHNSON is an engineer in the Geosciences and Information Technology Section of the Environmental Assessment Division at the Argonne National Laboratory. His current areas of research include design of precision excavation programs for soil remediation, application of geostatistical methods to the design of environmental sampling programs, numerical modeling of groundwater flow and contaminant transport, and optimization techniques applied to subsurface remedial action design. He is also a lead developer of Adaptive Sampling and Analysis Program (ASAP) characterization and remedial technologies to support cleanup activities at hazardous waste sites. Dr. Johnson received his B.S. in mathematics from Calvin College, his M.S. in environmental engineering systems from Johns Hopkins University, and his Ph.D. in soil and water resources from Cornell University.

MICHELLE M. LORAH is a research hydrologist with the U.S. Geological Survey in Baltimore, Maryland. Her research and project management expertise includes biodegradation of organic contaminants, hydrology and biochemistry in wetlands and other groundwater/surface water interfaces, and subsurface remediation at contaminated Army sites, particularly Aberdeen Proving Ground. Dr. Lorah received her B.S. in geosciences from Pennsylvania State University, her M.S. in aqueous geochemistry from the University of Virginia, and her Ph.D. in environmental chemistry from the University of Maryland.

GENE F. PARKIN is a professor of civil and environmental engineering at the University of Iowa, where he served as chair from 1990 to 1995. His teaching interests include biological wastewater treatment, environ-

mental chemistry, and remediation of hazardous wastes. He has conducted research in bioremediation, the fate and effects of toxic chemicals (including metals) in the subsurface and aboveground treatment systems, anaerobic biological treatment, and biological nitrogen removal. He serves as the director of the Center for Health Effects of Environmental Contamination at the University of Iowa. Dr. Parkin received his Ph.D. in environmental engineering from Stanford University.

FREDERICK G. POHLAND is professor and Edward R. Weidlein chair of environmental engineering at the University of Pittsburgh. His research focuses on environmental engineering operations and processes, solid and hazardous waste management, and environmental impact monitoring and assessment. He has been a visiting scholar at the University of Michigan and a guest professor at the Delft University of Technology in the Netherlands. Dr. Pohland has previously served on many NRC committees, most recently on the Committee on Technologies for Cleanup of Subsurface Contaminants in the DOE Weapons Complex. He is a member of the National Academy of Engineering. Dr. Pohland received his B.S. in civil engineering from Valparaiso University and his M.S. and Ph.D. in environmental engineering from Purdue University.

DAN D. REIBLE is a professor of chemical engineering and director of the EPA Hazardous Substance Research Center at Louisiana State University. His research focuses on transport phenomena and their applications to environmental mechanics, especially as related to contaminated sediments and dredged materials. Dr. Reible also directs projects on the remediation of contaminated soils and a program on the transport of airborne contaminants released from sediments along coastlines. He is currently serving on the NRC Committee on Remediation of PCB-Contaminated Sediments. Dr. Reible received his Ph.D. in chemical engineering from the California Institute of Technology.

LENNY M. SIEGEL is the director of Center for Public Environmental Oversight, a project of San Francisco State University's Urban Institute. He is one of the environmental movement's leading experts on military base contamination and has worked as a consultant to a wide range of organizations. Mr. Siegel is or was recently a member of several government advisory committees including the Defense Science Board Task Force on Unexploded Ordnance, the Federal Facilities Environmental Restoration Dialogue Committee, the Subcommittee on Waste and Facility Siting of the National Environmental Justice Advisory Committee,

and the Moffett Field Restoration Advisory Board. Mr. Siegel edits the Citizens Report on the Military and the Environment, and his organization runs Internet forums both on military environmental issues and Brownfields.

MITCHELL J. SMALL is a professor in the departments of civil and environmental engineering and engineering and public policy at Carnegie Mellon University. His research interests include mathematical modeling of environmental quality, statistical methods and uncertainty analysis, human exposure modeling, human risk perception and decision making, and groundwater and soil pollution monitoring. He has previously served on several NRC committees, including the Committee on USGS Water Resources Research. Dr. Small received his B.S. in civil engineering/engineering and public affairs from Carnegie Mellon University and his M.S. and Ph.D. in environmental and water resources engineering from the University of Michigan.

RALPH G. STAHL, JR., is a senior consulting associate with DuPont Engineering Corporate Remediation. His research primarily focuses on evaluating the effects of chemical stressors on aquatic and ecological ecosystems. Most recently, Dr. Stahl has been responsible for leading DuPont's corporate efforts in ecological risk assessment and natural resource damage assessments for site remediation. He is also currently the chair of the Chemical Manufacturers Association Ecological Risk Assessment Task Group. Dr. Stahl received his B.S. in marine biology, his M.S. in biology from Texas A&M University, and his Ph.D. in environmental science and technology from the University of Texas School of Public Health.

ALICE D. STARK is director of the Bureau of Environmental and Occupational Epidemiology at the New York State Department of Health. She has conducted health assessments among populations exposed to toxic substances from hazardous waste sites and other sources of environmental exposure. Dr. Stark is also an adjunct professor of anthropology at SUNY, Albany, where she was formerly an associate professor of environmental health and toxicology and epidemiology. She is currently conducting a follow-up health study at Love Canal and a Farm Family Health and Hazard Survey. Dr. Stark recently served on two National Cancer Institute committees, one of which investigated the role of xenobiotic chemicals in causing cancer.

ALBERT J. VALOCCHI is a professor of civil and environmental engineering at the University of Illinois. His research focuses upon mathematical modeling of pollutant fate and transport in porous media, with applications to groundwater contamination and remediation. Dr. Valocchi specializes in the development and application of models that couple physical, geochemical, and microbiological processes over scales ranging from the pores (micrometers) to the field (kilometers). Some current research projects include investigation of pore-scale processes controlling pollutant fate, impact of spatial variability upon the modeling of in situ biodegradation, and application of advanced scientific computers to reactive solute transport. He received his Ph.D. in civil engineering from Stanford University.

WILLIAM J. WALSH is an attorney and a partner in the Washington, D.C., office of Pepper, Hamilton LLP. He has also served as a section chief in the EPA Office of Enforcement and was the lead attorney for EPA in the Love Canal litigation, which involved four large hazardous waste landfills in Niagara Falls, New York. His legal experience encompasses environmental litigation on a broad spectrum of issues pursuant to a variety of environmental statutes, including the Resources Conservation and Recovery Act (RCRA) and the Toxic Substances Control Act (TSCA). He represents trade associations in rulemakings and other public policy advocacy, represents individual companies in environmental actions, and advises technology developers and users concerning ways to take advantage of the incentives for and eliminate the regulatory barriers to the use of innovative environmental technologies. He has previously served on several NRC committees, most recently on the Committee to Review the Army Non-Stockpile Chemical Material Disposal. Mr. Walsh received his B.S. in physics from Manhattan College and holds a J.D. from George Washington University Law School.

CLAIRE WELTY is an associate professor of civil engineering at Drexel University. Her current research entails stochastic analyses of dispersive transport in porous media and virus transport through aquifers. She has also concentrated on providing improved computer code for numerical contaminant transport models. She previously worked as an environmental scientist in the Hazardous and Industrial Waste Division at EPA. Dr. Welty received her Ph.D. in civil engineering from the Massachusetts Institute of Technology.

STAFF

LAURA J. EHLERS is a senior staff officer for the Water Science and Technology Board of the National Research Council. Since joining the NRC in 1997, she has served as study director for nine committees, including the Committee to Review the New York City Watershed Management Strategy, the Committee on Riparian Zone Functioning and Strategies for Management, and the Committee on Bioavailability of Contaminants in Soils and Sediment. She received her B.S. from the California Institute of Technology, majoring in biology and engineering and applied science. She earned both an M.S.E. and a Ph.D. in environmental engineering at the Johns Hopkins University.